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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,588	09/27/2004	Henk W. M. Boelaars	2255.0	5587

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EXAMINER

NICHOLSON III, LESLIE AUGUST

ART UNIT	PAPER NUMBER
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3651

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/711,588	Applicant(s) BOELAARS, HENK W. M.	
	Examiner Leslie A. Nicholson III	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/28/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Due to Applicant's amendments, all objections to the specification are hereby withdrawn.

Due to Applicant's amendments, all 35 USC 112 2nd paragraph rejections are hereby withdrawn.

Applicant's arguments filed 4/28/2006 have been fully considered but they are not persuasive.

Regarding the word "intersecting", the conveyors of Boelaars (USP 6568522) do in fact intersect one another. Two lines that meet at a point intersect one another. The Examiner suggests amending claim 1 (line 4) (and any other relevant claims) to replace "intersecting" with "intersecting and passing through". The main conveyor of Boelaars (USP 6568522) does not pass through the cross conveyor.

Regarding 1, conveyor 40 is fully capable of being the main conveyor while conveyor 12 is fully capable of being the cross conveyor without any required modification.

Regarding claim 2, the drive 56 of Boelaars is fully capable of being bidirectional.

Regarding claims 3-6, 11-14, 18, 21, 22, 27-32, 36, and 37, the cross conveyor (20) of Boelaars arranged intersecting main conveyor (40) replacing the roller diverter (1) of Adama clearly suggests all the limitations of the claims. The above argument regarding claim 1 renders this clearer.

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Further regarding claim 32 and 36, Adama teaches means for raising and lowering the roller-top belt as described in ¶8 of the last Office Action.

Further regarding claim 37, Boelaars and Adama, in combination, suggest the limitations of the claim. The above argument regarding claim 1 renders this clearer.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Boelaars USP 6,568,522.

Boelaars discloses a similar conveyor system comprising:

- A main conveyor (40)
- At least one cross conveyor (20) disposed along the main conveying path and intersecting the main conveyor, the cross conveyor comprising:
 - A roller-top belt (at least fig.2) having a plurality of rollers and having axles (45)
 - A bi-directional drive (56) engaging the roller-top belt

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-6,11-14,18,21,22,27-32,36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boelaars USP 6,568,522 in view of Adama USP 4,598,815.

Boelaars discloses all the limitations of the claim (see ¶13), but does not expressly disclose the main conveyor comprising a series of endless belt loops along the main conveying path separated by a gap, the main conveyor belt defining a conveying plane along a major portion of the main conveying path and disposed below the cross conveyor along a minor portion.

Adama teaches the main conveyor comprising a series of endless belt loops along the main conveying path separated by a gap, the main conveyor belt defining a conveying plane along a major portion of the main conveying path and disposed below the cross conveyor along a minor portion (at least fig.3) for the purpose of the main conveyor belt moving continuously from the upstream side to the downstream side (C7/L26-36).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ the main conveyor with a series of endless belt loops along the main conveying path separated by a gap, the main conveyor belt defining a conveying plane along a major portion of the main conveying path and disposed below the cross conveyor along a minor portion, as taught by Adama, in the device of Boelaars, for the purpose of the main conveyor belt moving continuously from the upstream side to the downstream side.

Boelaars further discloses the roller-top belt including sprocket sets (54,55) on opposite sides of the main conveyor but does not expressly disclose the article-supporting surface slightly above the main conveying plane when the drive is driving the roller-top belt or means to selectively raise and lower the roller-top belt.

Adama teaches the article-supporting surface slightly above the main conveying plane when the drive is driving the roller-top belt and means (42) to selectively raise and lower the roller-top belt for the purpose of creating a diversion of conveyed articles (C8/L23-48).

At the time of invention it would have been obvious to one having ordinary skill in the art to have the article-supporting surface slightly above the main conveying plane when the drive is driving the roller-top belt and means to selectively raise and lower the roller-top belt, as taught by Adama, in the device of Boelaars, for the purpose of creating a diversion of conveyed articles.

6. Claims 7,8, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boelaars USP 6,568,522 (in view of Adama USP 4,598,815) further in view of Schroeder USP 5,238,099.

Boelaars discloses all the limitations of the claim (see ¶13) and further discloses the drive including sprockets (54,55) on opposite sides of the main conveyor about which the roller-top belt is looped, but does not expressly disclose the cross conveyor including a wear surface beneath the outer article-supporting surface of the roller top-belt wherein the sprockets are elevated relative to the wear surface so that a tangent

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line between an outer periphery of a sprocket on one side of the main conveying path and an outer periphery of a sprocket on the opposite side lies above the support surface.

Schroeder teaches the cross conveyor including a wear surface (40) beneath the outer article-supporting surface of the roller top-belt wherein the sprockets are elevated relative to the wear surface so that a tangent line between an outer periphery of a sprocket on one side of the main conveying path and an outer periphery of a sprocket on the opposite side lies above the support surface (see figures) for the purpose of controlling the direction of conveyance of articles on the transfer belt (C1/L48-68, C2/L1-6).

At the time of invention it would have been obvious to one having ordinary skill in the art to have the cross conveyor including a wear surface beneath the outer article-supporting surface of the roller top-belt wherein the sprockets are elevated relative to the wear surface so that a tangent line between an outer periphery of a sprocket on one side of the main conveying path and an outer periphery of a sprocket on the opposite side lies above the support surface, as taught by Schroeder, in the device of Boelaars, for the purpose of controlling the direction of conveyance of articles on the transfer belt.

7. Claims 10,19,23, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boelaars USP 6,568,522 (in view of Adama USP 4,598,815) further in view of Bonnet USP 5,984,078.

Boelaars discloses all the limitations of the claim (see ¶3,5), but does not expressly disclose sensors.

Bonnet teaches the use of sensors (54) for the purpose of providing a signal before a parcel is about to enter a diverter station (see figures) (C4/L37-49).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ the use of sensors, as taught by Bonnet, in the device of Boelaars, for the purpose of providing a signal before a parcel is about to enter a diverter station.

8. Claims 9,15-17,24-26, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boelaars USP 6,568,522 in view of Adama USP 4,598,815 further in view of Goldinger USP 3,921,789 and O'Connor USP 6,318,544.

Boelaars discloses all the limitations of the claim (see ¶3,5) and further discloses sprocket sets on opposite sides of the main conveying path about which the roller-top belt is looped, but does not expressly disclose the means for raising and lowering the roller-top comprising elevating the sprocket sets relative to the main conveyor to raise the roller-top belt to the higher second position when the roller-top belt is being driven and to allow the roller-top belt to sag into the lower first position when the roller-top belt is stopped, or a wear surface disposed in the gap.

Goldinger teaches the means for raising and lowering the roller-top comprising elevating the sprocket sets relative to the main conveyor to raise the roller-top belt to the higher second position when the roller-top belt is being driven for the purpose of repositioning the conveyed article once it reaches the transfer device (C2/L30-53).

At the time of invention it would have been obvious to one having ordinary skill in the art to have the means for raising and lowering the roller-top comprising elevating the sprocket sets relative to the main conveyor to raise the roller-top belt to the higher second position when the roller-top belt is being driven, as taught by Goldinger, in the device of Boelaars, for the purpose of repositioning the conveyed article once it reaches the transfer device.

O'Connor teaches a wear surface disposed in the gap and the roller-top belt to sag when the roller-top belt is stopped (fig.1,4) for the purpose of allowing the belt to slack so it does not break.

At the time of invention it would have been obvious to one having ordinary skill in the art to employ a wear surface disposed in the gap and to allow the roller-top belt to sag when the roller-top belt is stopped, as taught by O'Connor, in the device of Boelaars, for the purpose of allowing the belt to slack so it does not break.

Regarding claims 17 and 26, Boelaars discloses all the limitations of the claims, as well as the upstream conveyor, downstream article receiver, and the roller-top belt including an upper-article supporting surface generally coplanar with each other at the gap, but does not expressly disclose the means for selectively raising and lowering the roller-top belt comprises a wear surface supporting an upper surface of the roller-top belt from below and a lift that raises and lowers the support surface.

O'Connor teaches a wear surface supporting an upper surface of the roller-top belt from below and a lift (80) (fig.3) that raises and lowers the support surface for the

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purpose of having even greater control of the conveying characteristics (C5/L64-67, C6/L1-10).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ a wear surface supporting an upper surface of the roller-top belt from below and a lift that raises and lowers the support surface, as taught by O'Connor, in the device of Boelaars, for the purpose of having even greater control of the conveying characteristics.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

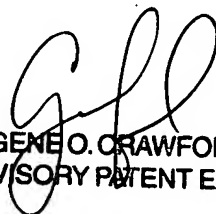
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Nicholson III whose telephone number is 571-272-5487. The examiner can normally be reached on M-F, 8:30 AM - 5 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

L.N.
5/30/2006


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SUPERVISORY PATENT EXAMINER